

Bridging The Gap: Case studies of what works, and lessons learned

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PROGRAM OUTLINE:

- California Space Grant Award
- McNair Scholar Summer Program Awards
- Astrobiology Minority Institution Research
Sabbatical with student follow-up
- Where next?



California Space Grant

Project Theme:

Terrestrial analogs for astrobiology, and
identification of extremophile “fingerprints”

Student Participants:

Amanda Lopez

Alonzo Poach

Christina Velasquez



Searles Valley Minerals

TRONA FACILITY



Re-evaluate stipends:

Student health insurance stipend?

Student travel funds

More student research funding



McNair Scholar Summer Program

Student Participants:

Amanda Lopez

Christina Velasquez

Stephanie Montgomery

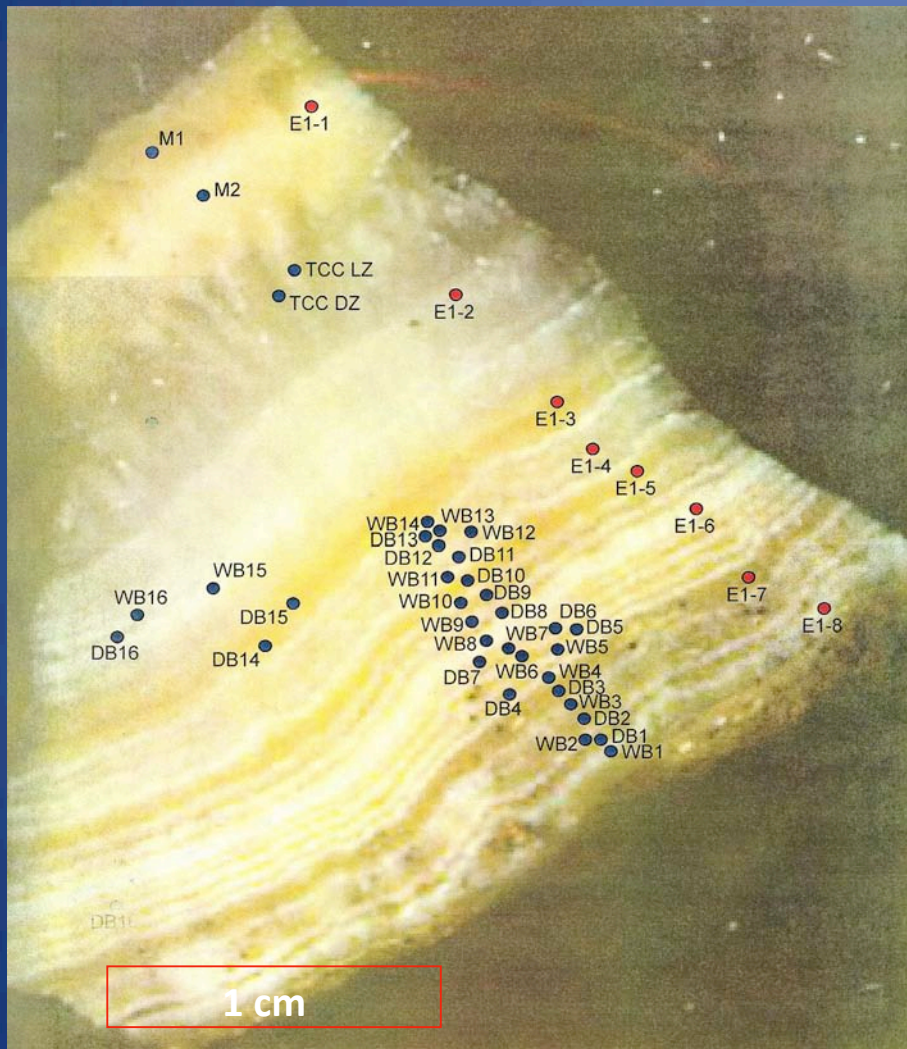
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Terrestrial analogs for astrobiology, and
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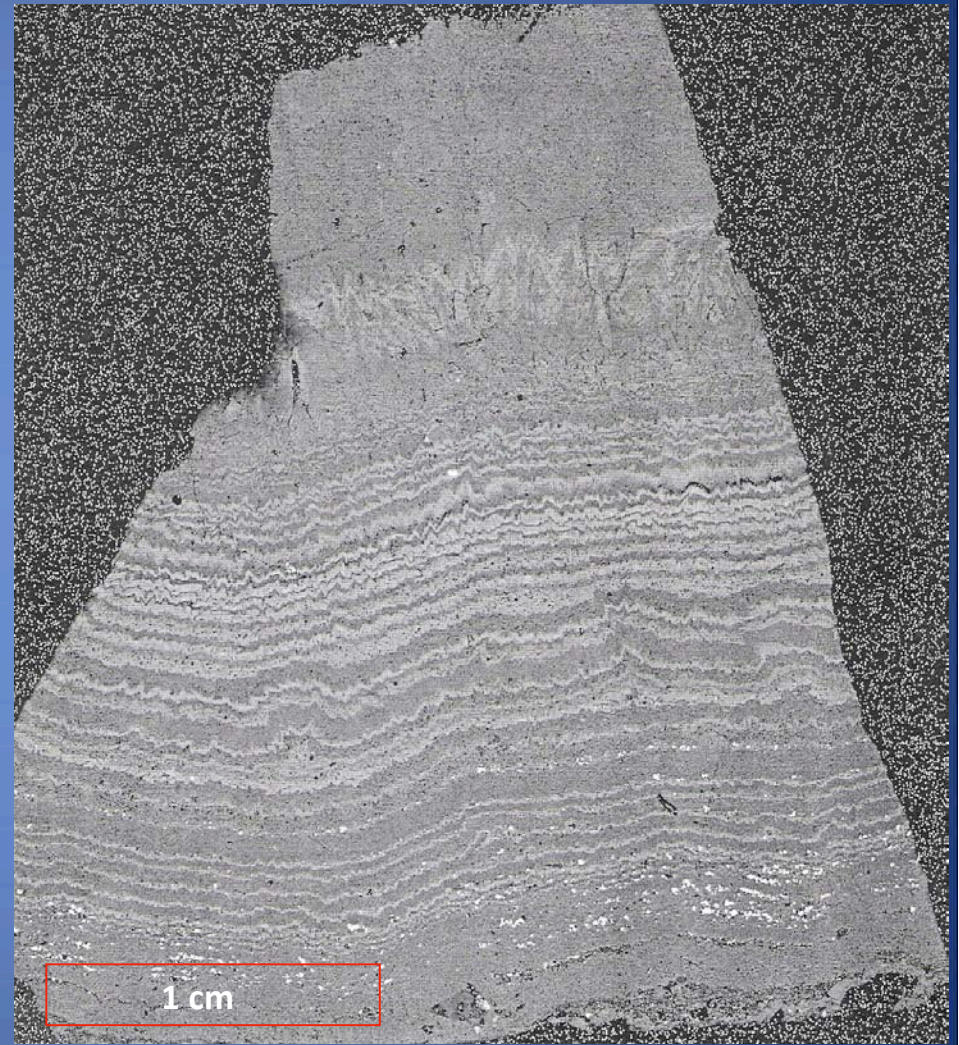
Left to right:
Stephanie Montgomery
Nicolette Grill
Judy Williams



Banded Calcite Sample E-1



Normal (visible) Light



Back Scatter image from
Electron Microprobe

Minority Institution Research Sabbatical with Student Follow-up

Student Participants:

Amanda Lopez

Christina Velasquez

Project Theme:

Terrestrial analogs for astrobiology, and
identification of extremophile “fingerprints”

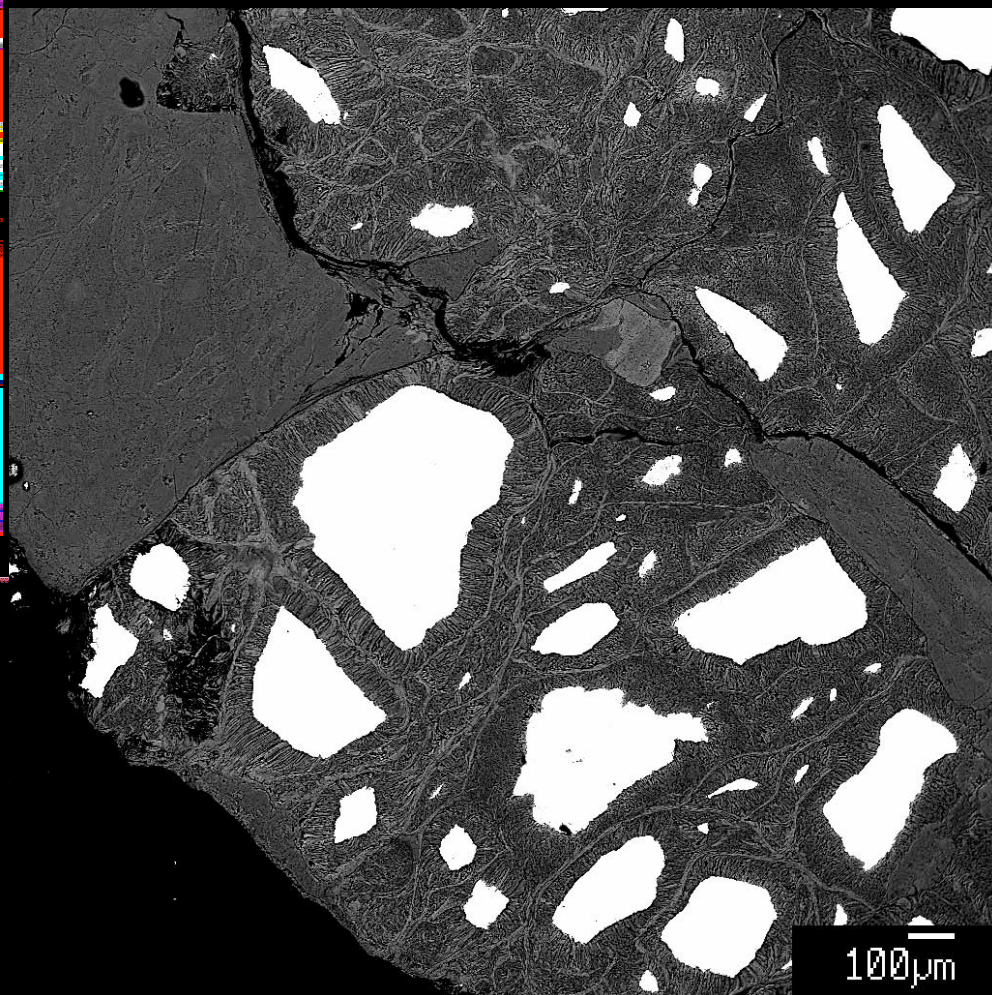
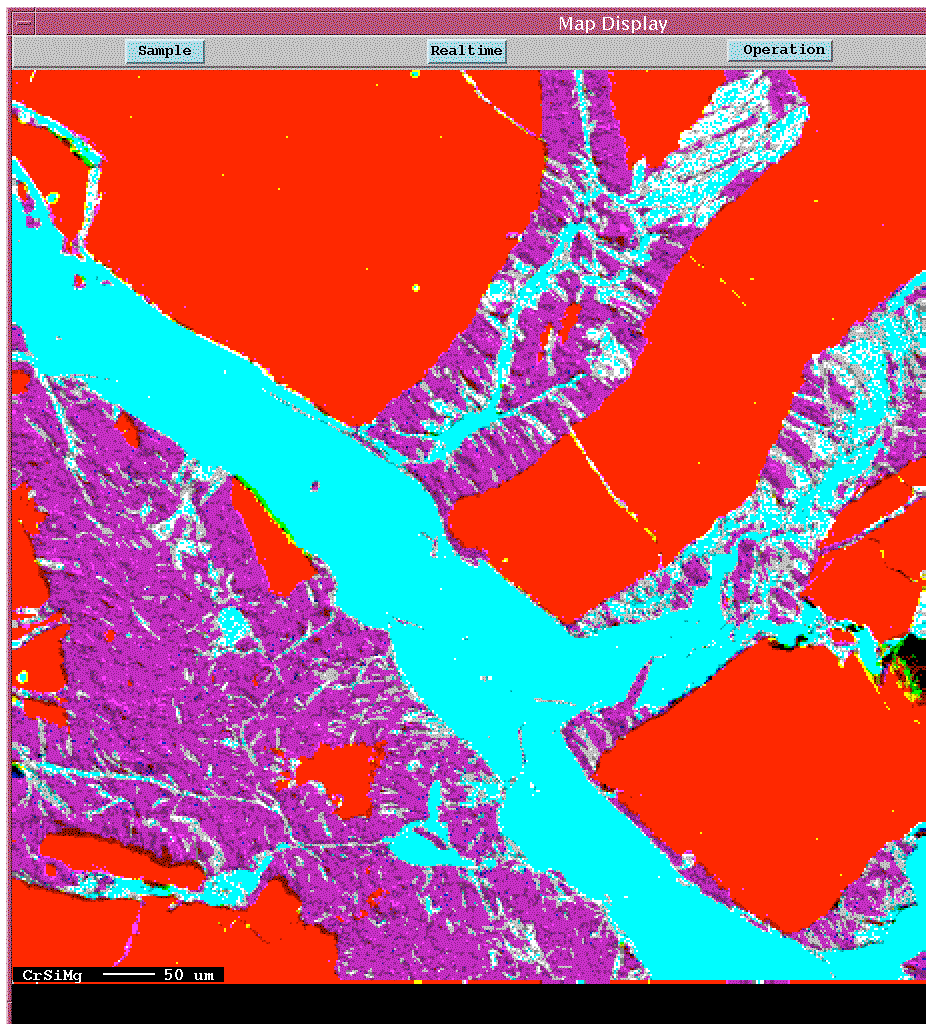
Left to right:
Amanda Lopez
Holly Hanke
Diana Schweiger



Amanda Lopez

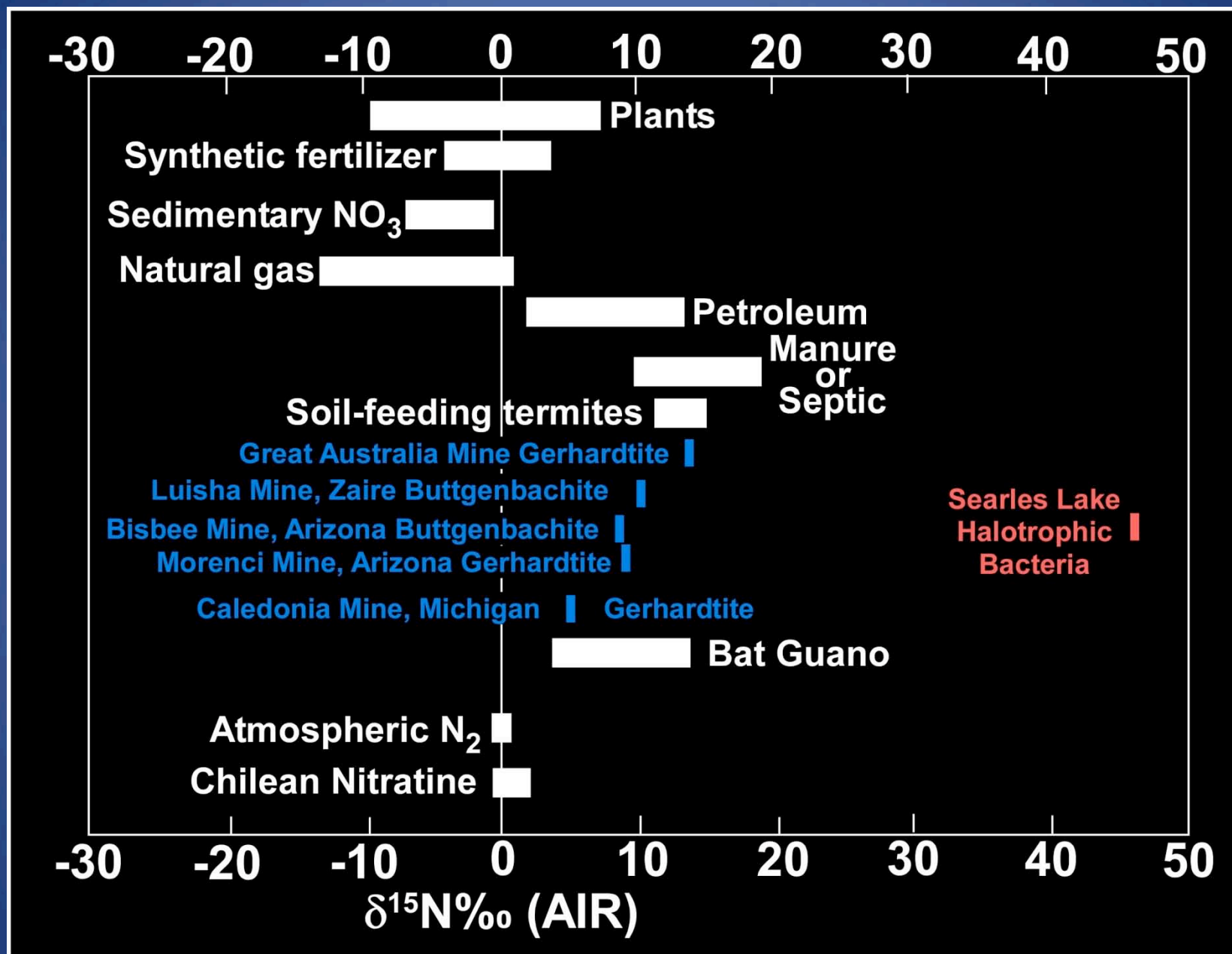
- Access to advanced instrumentation at University of Hawaii permitted detailed isotope and chemical analysis of samples
- Stichtite forms from organic carbon and hydrogen deep within Archean subduction-type environments





Christina Velasquez

- Access to advanced instrumentation at University of Hawaii permitted detailed isotope and chemical analysis of samples
- Extremophile bacteria (archaea) from arid, super-saline environments have unique, easily identified isotopic signatures



Where Next? Bridging The Gap

- Many tools are in place to facilitate instruction of students from underrepresented groups. These must be preserved and expanded.
- Must establish a “bridge” so that the participants and graduates of these programs may transition to NASA.
- Must ensure the these academic programs at MSI's and HSI's stay open and viable.